

Appl. No.: 10/029,929
Amdt. dated 03/21/2006
Reply to Official Action of November 22, 2005

Amendments to the Drawings:

In view of the Official Action's objection to FIG. 3 for failing to illustrate "memory 210" described on page 5, paragraph 7, line 5, the attached replacement drawing sheet, which includes FIG. 3, includes the aforementioned "memory 210."

Attachment: Replacement Sheet (FIG. 3)

REMARKS/ARGUMENTS

Applicants appreciate the thorough examination of the present application, as evidenced by the first Official Action. The first Official Action provisionally rejects all of the pending claims, namely Claims 1-6, under the doctrine of obviousness-type double patenting in view of co-pending U.S. Patent Application No. 10/029,974. The first Official Action also rejects Claims 1-6 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent Application Publication No. 2003/0072253 to Hiramatsu. In addition, the Official Action objects to the drawings, and particularly FIG. 3, as failing to illustrate “memory 210” described in the specification. In response, Applicants have amended FIG. 3 to include the aforementioned “memory 210,” and therefore respectfully submit that the objection to FIG. 3 is overcome.

Also in response, Applicants have amended Claims 1, 2, 4 and 5 to further clarify the claimed invention, and added new Claims 7-20 to recite further patentable features of the claimed invention. As explained below, Applicants respectfully submit that the claimed invention is patentable over Hiramatsu. As also explained below, however, Applicants respectfully submit that the first Official Action has not presented any proper support for the assertion that the claimed inventions of the present application and the ‘974 application are not patentably distinct from one another, and accordingly, Applicants respectfully traverse the provisional double patenting rejection. In view of the amendments to the claims and the drawings, the added claims, and the remarks presented herein, Applicants respectfully request reconsideration and allowance of all of the pending claims of the present application.

A. The Official Action Fails to Support a Provisional Double Patenting Rejection

The first Official Action provisionally rejects Claims 1-6 for obviousness-type double patenting in view of the aforementioned ‘974 application. Applicants respectfully submit, however, that even if the claimed invention of the present application and that of the ‘974 application are related, the Official Action has not presented any proper support for the assertion that respective inventions are not patentably distinct from one another. The Official Action indicates that the claimed invention of the present application merely broadens the scope of the claimed invention of the ‘974 application. More particularly, for example, the Official Action

alleges that independent Claims 1 and 4 include all of the limitations of pending Claims 1 and 4 of the '974 application except the selected manner in dependence on the modulation method employed in the physical layer, and would accordingly dominate pending Claims 1 and 4 of the '974 application.

As explicitly stated in the MPEP, however, the fact that one application dominates another application (i.e., when an application has a broad or generic claim that fully encompasses or reads on the claimed invention of another application) cannot itself support a double patenting rejection. MPEP § 804 II. Thus, to support an obviousness-type double patenting rejection, the Official Action must establish that the claims of the present application are obvious variations of the invention defined by the claims of the '974 application. As the Official Action fails to establish such obviousness of the claimed invention, Applicants respectfully submit that the provisional double-patenting rejection of Claims 1-6 is overcome. Nonetheless, should the Examiner maintain the provisional double patenting rejection, Applicants respectfully request such rejection be held in abeyance until such time that the present application or the '974 application is allowed.

B. Claims 1-14 are Patentable over Hiramatsu

Amended independent Claim 1 recites a method of transmitting a radio signal. As recited, the method includes implementing a protocol stack having at least a physical layer and a medium access control layer, where the medium access control layer directs data from at least one application to a plurality of transport channels in accordance with a bit class of the data. The method also includes processing each transport channel in accordance with a scheme dependent upon the bit class. Further, the method includes multiplexing the transport channels to produce a physical layer signal, where a code identifying each transport channel processing scheme is included in the physical layer signal.

In contrast to independent Claim 1, Hiramatsu does not teach or suggest a method including implementing a protocol stack having a medium access control layer directing data in accordance with a bit class of the data, or processing each transport channel (to which the medium access control layer directs data) in accordance with a scheme dependent upon the bit

class. Hiramatsu discloses a system for selecting a M-ary modulation scheme whose signal space mapping is determined by the ratio of power in a known common pilot signal to that of the data signal. The system disclosed by Hiramatsu solves problems associated with noise and power fluctuations in the common pilot signal. Hiramatsu suggests that a plurality of transport channels may be multiplexed onto the same physical layer signal in accordance with standard communication techniques. The claimed invention, on the other hand, is capable of controlling transmission streams by processing a plurality of transport channels individually according to a bit class, before multiplexing and further interleaving. Data of different bit classes, obtained from an application, may therefore be processed differently, in order to optimize resources.

By inserting transport format combination indicator data in the claimed invention, a plurality of transport channels may be sent in the same physical channel, with demodulation based on the bit fields of the transmitted signal. The claimed invention is therefore concerned with solving a different problem than Hiramatsu, namely the processing of data streams of different bit classes. The cited reference, Hiramatsu, on the other hand, is concerned with the adaptability of a particular modulation scheme to varying power conditions, irrespective of transport channel bit class.

Applicants therefore respectfully submit that amended independent Claim 1, and by dependency Claims 2, 3 and 7-13, is patentably distinct from Hiramatsu. Applicants also respectfully submit that amended independent Claim 4 recites subject matter similar to that of amended independent Claim 1. That is, amended independent Claim 4 recites subject matter directed to the role of a bit class in processing transport channels, including the aforementioned transport channels including data of a particular bit class, and processing transport channels in accordance with a scheme dependent upon the bit class. Thus, Applicants respectfully submit that amended independent Claim 4, and by dependency Claims 5, 6 and 14-20, is also patentably distinct from Hiramatsu, for at least the reasons given above with respect to amended independent Claim 1.

For at least the foregoing reasons, Applicants respectfully submit that the rejection of Claims 1-6 as being anticipated by Hiramatsu is overcome.

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CONCLUSION

In view of the amendments to the claims and the drawings, the added claims, and the remarks presented above, Applicants respectfully submits that the present application is in condition for allowance. As such, the issuance of a Notice of Allowance is therefore respectfully requested. In order to expedite the examination of the present application, the Examiner is encouraged to contact Applicants' undersigned attorney in order to resolve any remaining issues.

It is not believed that extensions of time or fees for net addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), and any fee required therefore (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 16-0605.

Respectfully submitted,



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Sarah B. Simmons

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APPENDIX

1. Replacement Sheet (FIG. 3)